

(2) Amended Claims

1. (Currently amended) ~~Method~~ A method for determining the propulsion force (40), its eccentricity (52) in relation to the neutral axis (N) and/or the advance direction (28) on advance of pipe elements (18) to produce a longitudinal structure in ~~soft, stony and/or rocky~~ ground, using a pressing device (24) ~~and on the faces of~~ fluid-filled expansion elements (44) arranged in the joints (70) of the pipeline (14), characterised in that in at least a part of the expansion elements (44) which are distributed over the entire length of the pipeline (14), ~~the~~ fluid pressure (p) and/or the deformation of the joints (70) is measured, and from these parameters the propulsion force (40) and eccentricity (52) are calculated and the values calculated are stored and/or compared with stored standard values.
2. (Currently amended) ~~Method~~ A method for controlling the propulsion force (40), minimising its eccentricity (52) in relation to the neutral axis (N) and/or the advance direction (28) on advance of pipe elements (18) to produce a longitudinal structure in ~~soft, stony and/or rocky~~ ground, using a pressing device (24) ~~and on the faces of~~ fluid-filled expansion elements (44) arranged in the joints (70) of the pipeline (14), characterised in that in at least a part of the expansion elements (44) which are distributed over the entire length of the pipeline (14), ~~the~~ fluid pressure (p) and/or the deformation of the joints (70) is measured, and from these parameters the propulsion force (40) and eccentricity (52) are calculated and the values calculated converted into control commands for the pressing device (24) and/or the individual fluid supply to or individual fluid discharge from the expansion elements (44).
3. (Currently amended) ~~Method~~ A method according to claim 1 or 2, characterised in that the deformation, ~~preferably expansion or shear deformation,~~ is measured in all joints (70).
4. (Currently amended) ~~Method~~ A method according to any of claims 1 or 2, characterised in that the deformation, preferably expansion in a joint (70), is measured at least at three points ~~preferably~~ distributed regularly over the periphery and the geometry of the expansion plane of the joint (70) is determined.
5. (Currently amended) ~~Method~~ A method according to any of claims 1 or 2, characterised in that ~~the~~ fluid pressure (p) of an expansion element (44) which are is divided into sections sectors and the fluid pressure (p) of each sections is measured in each section (A, B, C) and individual fluid

quantities are supplied to or extracted from ~~in~~ sections by ~~corresponding~~ control command corresponding to the fluid pressure measured for the sections.

6. (Currently amended) ~~Method A method~~ according to claim 5, characterised in that a header piece (30) is controlled with ~~the~~ a front expansion element (44).
7. (Currently amended) ~~Method A method~~ according to any of claims 1 or 2, characterised in that the fluid pressure (p) is measured in an expansion element (44) filled with a pressure-resistant fluid.
8. (Currently amended) ~~Method A method~~ according to any of claims 1 or 2, characterised in that the fluid ~~is~~ pressure (p) is measured in an expansion element (44) which in cross-section is circular, oval, elliptical or round in the direction of at least one face (42) of the pipe element (18).
9. (Currently amended) ~~Method A method~~ according to any of claims 1 or 2, characterised in that the ratio of force exerted (K₁) to force permitted (K₂) is calculated and monitored periodically or continuously, and when

$$\frac{K_1}{K_2} \geq 1$$

~~preferably~~ an alarm is triggered.

10. (Currently amended) ~~Method A method~~ according to any of claims 1 or 2, characterised in that ~~the~~ parameters ~~which~~ are measured on pre-compression of the expansion element (44) in ~~the~~ pressing shaft (12) and the measured values of the parameters are stored.
11. (Currently amended) ~~Method A method~~ according to any of claims 1 or 2, characterised in that analysis takes calculation of values and comparing with stored values or converting into control commands take place in real time.
12. (Currently amended) ~~Use of the A quality control~~ method comprising: performing the steps according to claim 1 for quality control to obtain records, qualitatively or quantitatively evaluating the records and implementing quality control based on the evaluation.